LANDAU
ASSOCIATES,
INC.
Geoenvironmental Engineering and Technologies

Colbert
COLSF 8.4 01

March 8, 1990

Mr. Mike Blum
Washington State Department of Ecology
M/S PV-11
Olympia, WA 98504-8711

RE: PROGRESS REPORT
COLBERT LANDFILL RD/RA
FEBRUARY, 1990

Dear Mr. Blum:

Presented herein is the February, 1990 Progress Report for the Colbert Landfill RD/RA Superfund Project (Project), which was prepared by Landau Associates, Inc. (Landau), Spokane County's Engineering Consultant. It addresses the reporting requirements specified in Section XI of the Project Consent Decree, including:

- A description of Remedial Action activities commenced or completed during the reporting period
- Remedial Action activities projected to be commenced or completed during the next reporting period (through March, 1990)
- Any problems that have been encountered or are anticipated in commencing or completing the activities.

1.0 ACTIVITIES COMMENCED/COMPLETED DURING REPORTING PERIOD

Several activities were commenced and/or completed during the reporting period. Most of these activities are related to continuation of Phase I field activities. Specific activities commenced and/or completed during this period include:

- Well construction activities have commenced, been completed, or are ongoing at a number of Phase I well locations (refer to Attached Site Plan, Figure 1).
  - The monitoring well at location CD-31 was completed. The well is screened Upper Sand/Gravel Aquifer from about 103 to 108-feet below ground surface (BGS). The saturated thickness of the Upper Sand/Gravel Aquifer is about 4 feet at this location.
  - The monitoring well at location CD-32 was completed. The well is screened in the Upper Sand/Gravel Aquifer from about 103 to 113 feet BGS. The saturated thickness of Upper Sand/Gravel Aquifer is about 15

feet at this location; however, the saturated portion of the aquifer consists of fine to very fine sand.

- The boring for pilot well CP-E1 (East System-North pilot well) was advanced to about 215 feet BGS. It is anticipated that the boring will be advanced to about 300 feet BGS, and the pilot well will be screened at about 250 feet BGS. Pilot well screen design will be accomplished based on grain size analysis of boring soil samples
- The boring for pilot well CP-E2 (East System-East Pilot Well) was advanced to about 80 feet BGS. The anticipated total depth of the well is about 200 feet BGS. It is anticipated that the well will be completed within the Basalt Aquifer, and a well screen will not be required.

- Well development for initial South System Phase I monitoring wells was completed.
- The initial round of ground water sampling for the East System Phase I monitoring wells was completed. Previously constructed monitoring wells CD-1, CD-4(U,L), CD-6(L), CD-7(L), CD-8(M), and CS-14(L) were sampled in addition to the East System Phase I monitoring wells.
- Supplemental data collection for the Lower Aquifer was commenced. Reference elevations were surveyed for 18 domestic wells, water level elevations were collected from 25 domestic wells and 16 monitoring well locations, and a ground water sample was collected for chemical analysis from one domestic well (b) (6) Ground water elevation data and chemical analyses results will be provided to EPA/Ecology as they become available.
- A geophysical survey was initiated February 26, 1990, to better define subsurface geologic conditions, and assist in locating additional Phase I monitoring wells. The geophysical method being utilized is electrical resistivity (vertical electrical soundings), and 9 soundings were completed by March 1.
- Ground water sampling was completed for initial South System Phase I monitoring wells CD-30, CD-31, and CD-32.

2.0 ACTIVITIES PROJECTED TO BE COMMENCED/COMPLETED DURING NEXT REPORTING PERIOD

As specified in the Schedule for Submittal of Deliverables the next reporting period extends through March, 1990. Anticipated activities for March include continuation of well construction activities, completion of the geophysical survey, completion of Lower Aquifer supplemental data collection, and (possibly) submittal of the Phase I Treatment and Discharge Plan. Specific activities anticipated to be commenced/completed during the next reporting period include:

- Complete pilot wells CP-E1 and CP-E2 (by late March)

- Complete an additional Phase I monitoring well about 50 feet north of location CD-20. This well will be used as an observation well for pilot well CP-E2 during the East System pilot studies (by late March).
- Complete an additional Phase I monitoring well about 150 feet east of location CD-21. This well will be used as an observation well for pilot well CP-E1 during the East System Phase I pilot studies (by late March).
- Complete Lower Aquifer supplemental data collection activities. Ground water samples will be collected from two to five domestic wells, depending on property access and water system configuration. The domestic wells under consideration for sampling include the (b) (6) wells. Ground water samples will be analyzed for volatile organic compounds (by mid-March).
- Complete the electrical resistivity geophysical survey. The geophysical survey scope includes up to about fourteen days of field activity. If the complete scope is accomplished, field activities would be completed by about March 12, 1990. However, the scope is being reevaluated daily and may be terminated at an earlier date if the survey does not provide satisfactory results.
- A meeting has been tentatively scheduled for March 19, 1990 to discuss preliminary geohydrologic and chemical data. The meeting will be attended by representatives of EPA, Ecology, and Landau Associates.
- The Phase I Treatment and Discharge Plan is being prepared, and may be completed by the end of March. EPA/Ecology will be informed once a submittal date is established.

3.0 ENCOUNTERED/ANTICIPATED PROBLEMS

A drilling problem occurred during advancement of the boring for pilot well CP-E2. The drive shoe for the temporary steel casing broke at a depth of about 80 feet BGS. The boring was backfilled using bentonite grout, in accordance with State well abandonment regulations. The boring was reinitiated about 15 feet to the southeast of the abandoned boring location.

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This progress report describes the major Remedial Action activities commenced or completed during the reporting period, anticipated to be commenced or completed during the next reporting period, and any problems encountered or anticipated. As such, there are secondary and peripheral activities associated with these major tasks that are not described herein. If clarification is required for any of the activities presented in this progress report, or if additional information is desired for secondary or peripheral activities, please contact me or Dean Fowler (Spokane County).

Very truly yours,

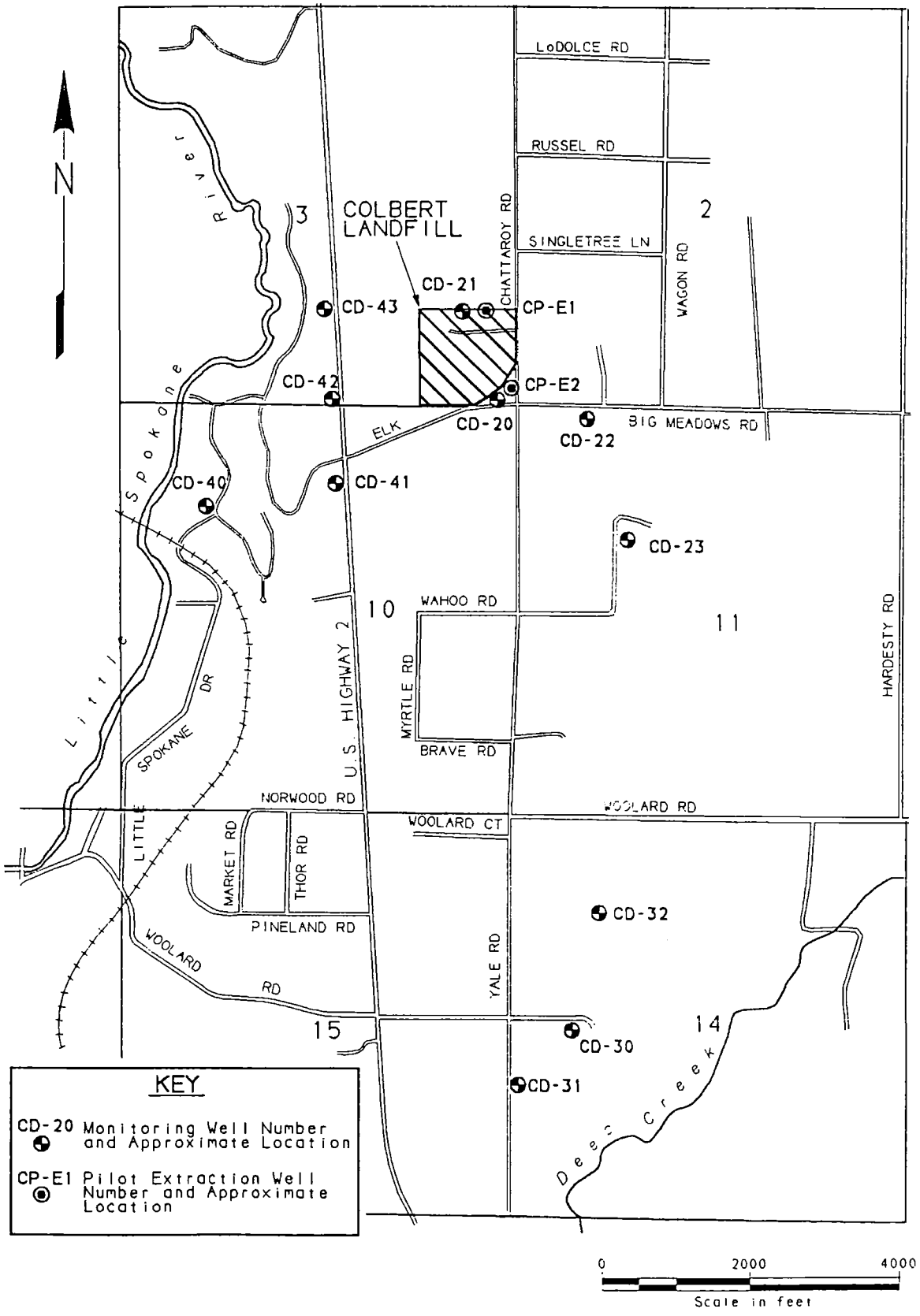
LANDAU ASSOCIATES, INC.

By:

Lawrence D. Beard, P.E.
Project Manager

LDB/ves
No. 124-01.60
Attachment

cc: Neal Thompson, EPA
Dean Fowler, Spokane County
Lyle Diedieker, Ecology and Environment



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LANDAU ASSOCIATES, INC.

Site Plan

Figure 1